

Title: PROCESSING OF SELF-MODIFYING CODE UNDER EMULATION

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FIG. 1

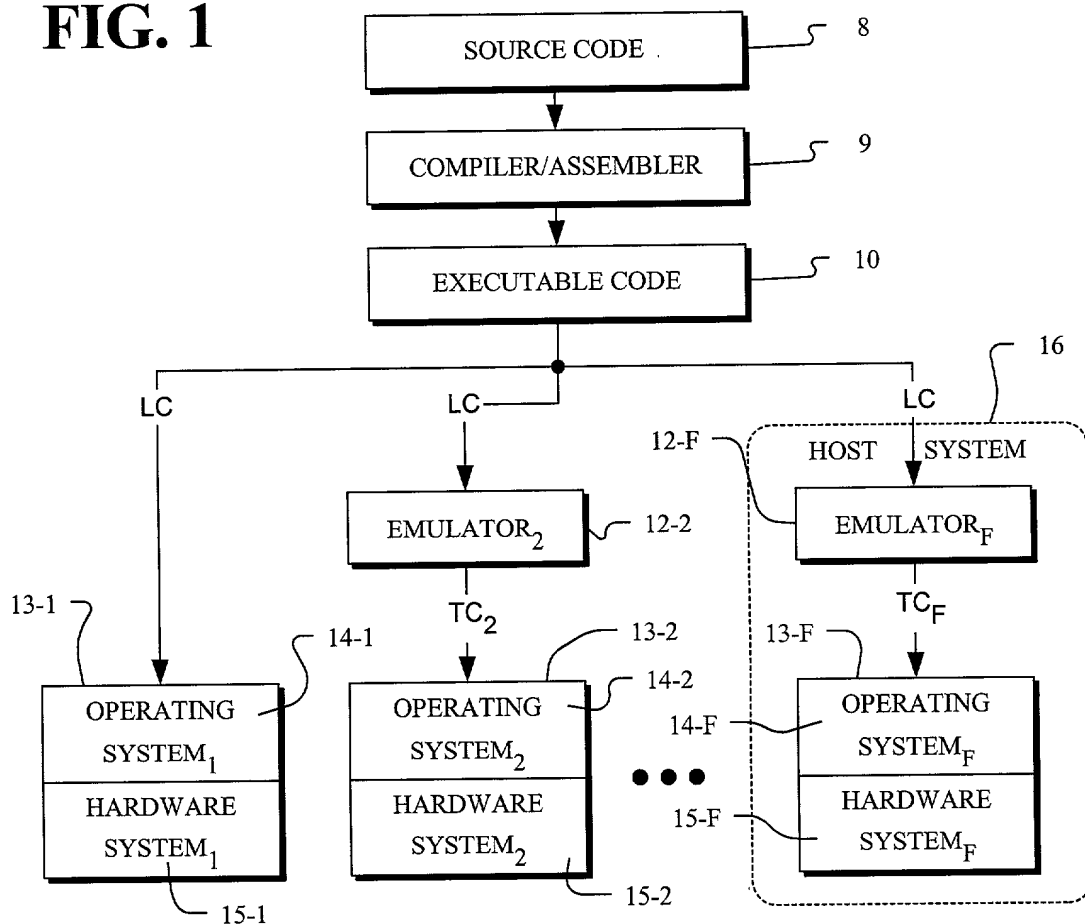
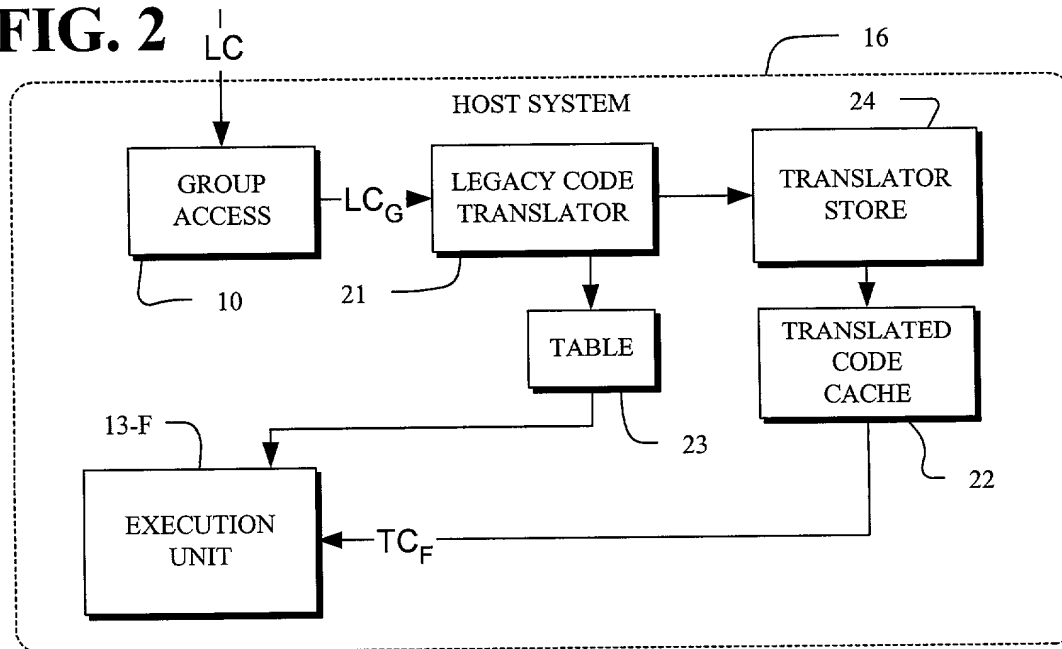


FIG. 2



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LEGACY CODE (CISC)

100	START	BALR	B1,R0
102	BASE	LM	R1,R2,DATA1
106		MVC	DATA1, DATA3
10C		AH	R1,DATA2
110		SRA	R1,1
114		SH	R2,DATA2
118		AR	R1,R2
11A		BC	TARGET
120	DATA1	DC	X'005390BC'
		DC	X'09C20004'
128	DATA2	DC	X'0009'
12A	DATA3	DC	X'800039AF'

FIG. 3



100	START	BALR	B1, R0
102	BASE	LM	R1, R2, DATA1
106		MVC	DATA1, DATA3
10C		AH	R1, DATA2



TRANSLATED CODE (RISC)

BALR	MOV B1	BASE
LM	ADD A1	B1, DATA1 - BASE
	LD4 R1	[A1]
	ADD A1	A1, 4
	LD4 R2	[A1]
MVC	ADD A1	B1, DATA1 - BASE
	ADD A2	B1, DATA3 - BASE
	LD4 T1	[A2]
	ST4 T1	[A1]
AH	ADD A1	B1, DATA2 - BASE
	LD2 T1	[A1]
	ADD R1	R1, T1
B	XFER	SEQUENTIAL

110		SRA	R1, 1
114		SH	R2, DATA2
118		AR	R1, R2
11A		BC	TARGET



120	DATA1	DC	X'005390BC'
		DC	X'09C20004'
128	DATA2	DC	X'0009'
12A	DATA3	DC	X'800039AF'

SRA	SHR	R1	1
SH	ADD	A1	B1, DATA2 - BASE
	LD2	T1	[A1]
	SUB	R2	R2, T1
AR	ADD	R1	R1, R2
BC	ADD	A1	B1, TARGET - BASE
	B		XFER_BRANCH

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